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WOMEN AND HEALTH

DR. VEENA SHATRUGNA

Research Unit on Women's Studies, S.N.D.T. Women's University.

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Foreward

There has been in recent years considerable interest in the various roles of women in society. The Research Unit has been running an information cell and in addition to research dissemination has been a major activity of the Unit.

In 1975, we brought out a Hand book on Women in India, containing basic statistics on women. This was in great demand and we did a reprint in 1981, but once again this too has been sold out. In our experience, many persons interested on women's issues want information but have no time of their own to patiently collect it from several different sources. We have been continuously approached by for basic data students, trade unionists, activists, journalists, etc. To meet this growing need, we have planned a series of data sheets, comprehensible and easily usable to the average reader, on different aspects of women's lives in India.

We brought out the first data sheet on "Women and Work" in 1982. This is the second in these series. Health has been an important feminist issue. The information and issues presented here are meant for the lay readers who are either technically not qualified to use official data sources or find it hard to collect data from various sources or who do not need technical excellence but general knowledge that can inform their debates and discussions and help to clarify their stand. We hope the presentation of important data in one place and the identification of issues that it makes possible will help further the cause of women's struggles. We hope to continue these series with data sheets on different subjects of concern to women.

General Editors
Neera Desai
Maithreyi Krishna Raj

Introduction

It was with enthusiasm that I agreed to compile data on "Women and Health" that would be useful to women in the women's organisations, grass root level workers and others concerned with these issues. Very soon, I found out that while very little data is available on the health problems of women, there are rich experiences of women that must be documented (definitely not as figures). Hence I have tried to follow some kind of a middle path using data wherever available, but substantiated and filled out with the experience of women.

The government programmes available to women have been dealt in detail, so that women activists would notice and question the implications of the piled up tablets, oral drops and other drugs available for the population. While we must try to build on alternative system of health care, we must also expose the responsibility of the system for the neglect of women. In this endeavour we must demand that women's health is given the priority it deserves.

The details on food intakes have been included, because I think this is an instance of the way manipulations are possible with numbers that do not relate to the lives of the poor and specially women.

There is so much to do in the area of actual diseases. So I picked up Anaemia to represent an apparently preventable problem that has assumed gigantic proportions for women, being directly or indirectly responsible for the largest number of maternal deaths. Metabolic diseases such as Hypertension and Diabetes have been included to explode the myth that women are a protected species and do not get these exotic illnesses. Leprosy represents the similar story of an "infectious" disease — where improper investigations and assumptions about women's resistence lead to the non detection of a large number of leprosy patients.

I realised that I could go on and on and this information is only the beginning. There is a whole area of women's problems

that go under the term "functional" (psychological). These are migraines, white discharge, dysfunctional uterine bleeding, dysmenorrhoea, menopausal problems, back pain etc. There are other problems that have provided doctors with limitless excitment in perfecting operation techniques, though the cause is vague or not known. These are prolapse, cancer cervix, incompetent OS, fistules. The lack of information and the limited framework of this attempt did not allow more discussion of these aspects.

I do hope that the book dealing with our health which is due to be published soon from our group will cover these questions in some detail. The search for the data on health status of women in industry, organised and unorganised led me from the Ministry of Labour through the Social Welfare Ministry to the Directorate of Health Services, all in vain. This area is very crucial because, women who work long hours in the low paid unskilled jobs, they are also the last to get organised. Hence health problems related to the work place, hazards of pollutants on women working during childhood, adolescence, pregnancy and lactation could be dangerous to the women and the foetus. There is very little information about the safe levels of these harmful substances and no amount of cash can compensate for the damage done such as TB, allergies, abortions, death of the unborn child, anaemia and other disorders.

This work would not have been possible without the support of the "Women and Health" group in Hyderabad. They have shaken me up from my smug professionalism. I must place on record the unstinted help of Ms. Vasanth Kannabiran, whose time I could claim for help in the editing, the language, ideas and thought processes. I have also consumed hours of Dr. Shyama Narang who started the search for data at the National Medical Library Delhi and came to the conclusion that getting a reference was hopeless. We decided instead to look at the concrete experience for they are real :

I must place on record the patience of Dr. Neera Desai and Ms. Maithreyi, but for their coaxing letters, I would not have dared to submit it in this form. My thanks are due to Mr. Alexander Varghese for his excellent typing.

Vital Statistics

Death rates, life expectancy and infant mortality rates are sensitive indicators of the physical well being of population. They also reflect the effectiveness of the social welfare state, the impact of health facilities and a general improvement in the socioeconomic status of a society. These indicators are however crude. They do hide all other truths of stress, competition and commercialisation that go with the traditional meaning of development. Since we have only these figures, and it is desirable that even these are brought to some humane level we can use them for the study of the status of women.

The death rates in India have been consistently falling since 1901 from 42.6 to 14.5 in 1977. But this average figure hides more than it reveals (Table 1.1). The urban death rate is almost half that of the rural incidence indicating the disparity in almost every sphere of their lives (Table 1.2). Next the female to male death rates are more than one from 0 to 35 years both in the urban and rural areas (Table 1.3) implying that the urban males have really more access to health care, food and other facilities that the system offers.

The expectation of life at birth has also increased in both the sexes (Table 1.4) in spite of the larger death rates in women. All Western countries have higher life expectancy for women than men and this advantage has been effectively nullified by the high infant mortality rates for girls and higher death rates of women in the reproductive period.

Whereas, the death rates have come down 3-4 times since 1901, and life expectancy doubled, the infant mortality rate has not even halved in 70 years (Table 1.5). The major component of even the death rate appear to be the death of infants and young children (Table 1.6). Thirty percent of all deaths are those of children below 4 years (Table 1.6). These are very high figures and affect life expectancy too.

The infant mortality is again much higher in the rural areas and among the girls. It is 142 among the rural girls and 69

among the urban boys for 1978 (Table 1.7). It means that the lack of health services, care during pregnancy, and child birth are compounded by neglect of baby girls. There is evidence to show that more men and boys get to see a doctor for even trivial reasons whereas women and young girls do not even for serious problems.

The major causes of infant mortality are preventable infections such as tetanus, lung infections like pneumonia, diarrhoeas, small babies (due to anaemia and malnutrition in the mothers), influenza etc. The improvement in basic sanitation and water supply would cope with these conditions.

There is a risk in relating almost every parameter with the mothers educational level and age at marriage. These two variables are themselves affected by socio-economic status and it is false to draw direct relationships between them. In fact, this kind of analysis (Table 1.8) serves to divert our attention from serious questions of the structure of society to the individual woman.

1. **Death rate :** It is defined as the number of deaths per 1,000 estimated mid-year population, in one year. It measures the rate at which deaths are taking place from various causes in a given population, during a specified period.

2. **Maternal mortality rate :** It is the number of deathe from peurperal causes per 1,000 live births.

3. **Infant mortality rate :** It is the number of infant deaths under one year of age per 1,000 live births in any population in one year.

4. **Neonatal mortality rate :** Death occuring within 4 weeks or 28 days of birth are called neonatal deaths.

5. **Perinatal mortality rate :** It is the mortality occuring during the period from 28 week of pregnancy to under 7 days of the post-natal life, per 1,000 total births.

6. **Expectation of life :** The expectation of life is defined as the average number of years likely to be lived by a person, who is subject to the mortality risks of the whole population at any given

time. The expectation of life at birth is considered one of the best indicators of health. As the mortality is high during the first year of life "expectation of life at 1 year of age" is sometimes used as an indicator of health, which is slightly higher than the expectation of life at birth.

TABLE — 1.1

Death Rates — 1901-1978

Period	Death rate
1901-11	42.6
1911-21	47.2
1921-31	36.3
1931-41	31.2
1941-51	27.4
1951-61	22.8
1961-71	18.9
1971-73	15.9
1973-75	15.3
1974-76	15.0
1975-77	15.2
1976-78	14.5

Population of India and Pakistan by Kingsley Davis.

TABLE — 1.2

Rural Urban Death Rates

Year	Rural	Urban	Ratio (R|U)
1970	17.3	10.2	1.70
1971	16.4	9.7	1.69
1972	18.9	10.3	1.83
1973	17.0	9.6	1.77
1974	15.9	9.2	1.73
1975	17.3	10.2	1.70
1976	16.3	9.5	1.72
1977	16.0	9.4	1.70
1978	15.3	9.4	1.63
1979	13.9	8.4	1.65

SOURCE — Economic and Political Weekly Aug. 7, 1982.

TABLE — 1.3

Ratio of Female Male Death Rates by Age Groups 1976-78

Age group (Years)	Ratio of Female Male Death Rate	
	Rural	Urban
0—4	1.17	1.04
5—9	1.31	1.59
10—14	1.04	1.40
15—19	1.42	1.57
20—24	1.65	1.45
25—29	1.47	1.27
30—34	1.09	1.07
35—39	0.93	0.89
40—44	0.74	0.82
45—49	0.58	0.64
50—54	0.69	0.69
55—59	0.63	0.75
60—64	0.75	0.76
65—69	0.83	0.77
70 +	0.82	0.92
All ages	1.06	1.03

SOURCE — Same as Table 1.2

TABLE — 1.4

Expectation of Life at Birth

Year	Expectation of life at birth	
	Male	Female
1901-10	22.6	23.3
1911-20	19.4	20.9
1921-30	26.9	26.6
1931-40	32.1	31.4
1941-50	32.5	31.7
1951-60	41.9	40.6
1961-70	46.4	44.7
1976-77	50.8	50.0

Census Acturial Reports, while data for 1966-77 are from the Sample Registration System.

TABLE — 1.5

Infant Mortality — 1911-1978

Period	Infant mortality
1911-15	204
1916-20	219
1921-25	174
1926-30	178
1931-35	174
1936-40	161
1941-45	171
1946-50	134
1951-61	146
1961-71	129
1970	129
1971	129
1972	139
1973	131
1974	126
1975	140
1976	129
1977	130
1978	125

The rates for the period 1911-15 to 1941-45 are from Population of India and Pakistan by Kingsley Davis; for 1946-50 from Infant Mortality in India by S. Chandrasekhar, for the periods 1951-61 and 1961-71 from Census Actuary Reports, from 1970 to 1977 from Sample Registration system; for 1978 from the Infant and Child Mortality Survey.

TABLE — 1.6

Percentage Distribution of Deaths in Age Group 0-4 Years to Total Deaths (1977)

Rural Urban Totals	Age Group	Male	Female	Person
Rural	Below 29 days	20.32	17.59	18.94
	29 days to 1 year	9.90	12.09	11.00
	Below 1 year	30.22	29.68	29.94
	1-4 years	16.65	20.58	18.64
Urban	Below 29 days	14.03	11.25	12.70
	29 days to 1 year	10.01	10.66	10.32
	Below 1 year	24.05	21.91	23.02
	1-4 years	10.27	15.74	12.90
Total	Below 29 days	19.50	16.83	18.16
	29 days to 1 year	9.91	11.91	10.92
	Below 1 year	29.41	28.74	29.08
	1-4 years	15.82	20.61	17.92

Based on results of Sample Registration System.

TABLE — 1.7

Infant Mortality by Sex

Rural Urban Total	Year	Male	Female	Person
Rural	1972	141	161	150
	1973	141	144	143
	1976	133	146	139
	1977	136	146	140
	1978	130	142	136
Urban	1972	85	85	85
	1973	88	90	89
	1976	78	82	..80
	1977	80	82	81
	1978	69	71	..70
Total	1972	132	148	139
	1973	132	135	134
	1976	124	135	129
	1977	126	135	130
	1978	120	131	125

SOURCE — S.R.S.

TABLE — 1.8

Infant Mortality by Selected Characteristics

		Rural	Urban
(a)	Education of the woman		
	Literate	90	53
	Primary and above	64	49
	Literate but below primary	105	59
	Illiterate	132	81
(b)	Age at effective marriage		
	Below 18 years	141	78
	18-20 years	112	66
	21 and over years	85	46
(c)	Source of drinking water		
	Tap	103	63
	Hand pump	105	71
	Well	137	93
	Pond|Tank|River	105	91
(d)	Source of lighting		
	Electric lighting	87	56
	Oil lamp	163	99
	Lamp or lantern with chimney	117	86

See Source to Table 1.1.

Maternal Mortality

The number of women who die as a result of pregnancy and child birth is an index of the general care that they receive during this period. The figure for India is 417.6 per 100,000 live births, one of the highest in the world. Inspite of the free government health care systems, and the numerous programmes for women, very few women appear to benefit from the services. The main causes of maternal mortality are anaemia, septic abortions, severe bleeding and eclampsia. All these are preventable.

Eighty percent of deliveries still take place at home in the hands of traditional dais, or an elder in the family. If only we could use all the available communication media to inform women in the remote corners of the country of the need to detect problems early and get care at a hospital, maternal mortality deaths could be reduced ten fold. The problem is the delay in referral due to late diagnosis, long distances, lack of communication facilities and other insurmountable problems like lack of money.

During pregnancy, our dais could be trained to detect (see Dais Training Programme) problems of anaemia, malpresentation, preclampsia, bleeding problems and refer women on time to a well equipped hospital. During delivery any prolonged labour, severe bleeding, malpresentation must also be referred in time, (some times there are delays of upto 2-3 days, after a women has gone into labour).

Eclampsia, a condition that results in blood pressure, swelling and fits, resulting in death of mother, child or both, could be detected in pregnancy itself and treated. Problems of bleeding during pregnancy and labour need immediate care and perhaps caesarian sections in a well equipped hospital.

The CHV scheme (see Programmes for Women) should have laid emphasis on detection of complications early instead of only family planning. The table shows that abortion tops the list of killer problems. Now these abortions are being performed in the

country in the hands of traditional abortionists (about 6,000,000 are performed every year). The complications like sepsis, injury and shock which arrive in the hospitals have a 50% mortality rate among them. Surely a government that has legalised abortion should be offering this service in the rural areas. Instead of opening up these safe abortion centres, women who ask for an abortion even in the urban areas are turned away ruthlessly. For a long time this will be the only method of Family Planning that women will be able to practice due to the side effects of other methods (see Oral Contraceptives).

Perhaps, the reluctance of the relatives to bring in a woman in difficult labour may have many other causes. One of them could be the negligence at government hospitals, but more important perhaps the firm conviction that babies have always been delivered at home and such problems are an inevitable part of a women's destiny.

TABLE — 2.1

Maternal Death Rate per 100,000 Live Births for India — 1970 to 1972

S. No.	Causes	1970	1971	1972
1.	Abortion	21.4	14.7	56.2
2.	Eclampsia	34.6	40.4	46.2
3.	Placenta Praevia	24.7	22.0	30.1
4.	Haemorrhage in delivery	33.0	18.4	30.1
5.	Post-partum Haemorrhage	74.2	51.4	36.1
6.	Anaemia of pregnancy	62.6	69.8	50.2
7.	Abnormal presentation	18.1	22.0	28.1
8.	Puerperal sepsis	59.4	40.4	56.2
9.	Not classifiable as above	61.0	97.3	84.3
	All Causes :	389.1	376.3	417.6

Source : Model Registration Scheme — Survey of Causes of Death — 1972, Registrar General of India.

Anthropometry

Heights and weights are important indicators of growth and nutritional well being. Height indicates the state of affairs in childhood and adolescence. We continue to grow till 16-18 years and any chronic illness, malnutrition or diseases at that time would stunt heights. Infact, at crucial moments of growth spurts, if there is a stunting, we may not be able to make up the loss in height spurt and will be short.

Weights : are however, dynamic states and fluctuate with time. It indicates the present state of food intakes, disease condition or any other problem that affects weights. Hence, it reflects the present "health status" of the individual.

The data from the Nation Nutrition Monitoring Bureau (NNMB) on weights of adults reflect a grim picture for women all over the country. Women never seem to put on any weight after the age of 16 years and in fact maintain that weight upto 60 years of life, whereas men reach their maximum weights at 25 years and then plateau off upto 60 years. Men are obviously eating better between 16 years and 25 years.

Is it the early marriage ages of women that halts their growth? or is it the over work, early pregnancies and drain of breast feeding? Mens' weight gain however stops at 25 years. Is it related to marriage, work, or responsibilities? We do not have the answer.

During pregnancies women put on hardly 4-6 kg. of weight in 9 months, when the ideal weight gain should be 10-12 kg. This weight is shed quickly after delivery as out of the 5 kg, the baby might be 2.5 kg. The average birth weight of babies born to poor mothers is only 2.7, whereas well off mothers in India give birth to babies with an average birth weight of 3.2 kg. Thirty percent of poor mothers have birth weights of below 2.5 kg which indicates a risk weight because at such low weights more babies die of infection and often have problems with a high perinatal mortality and infact mortality rate.

TABLE — 3.1

Weights of Women (Kg) According to Ages in the Various States

Age (Years)	Orissa		West Bengal		Uttar Pradesh		Kerala		Tamil Nadu	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
16 +	42.8	40.1	40.6	39.4	43.6	42.6	43.2	40.8	41.6	39.7
17 +	42.4	41.8	41.6	40.4	46.0	42.8	44.5	43.8	42.8	42.6
18 +	43.6	42.4	44.5	41.5	47.1	41.2	48.3	42.3	46.9	41.2
19 +	47.8	42.3	45.2	40.4	48.4	41.3	49.2	44.4	47.9	44.0
20—25	48.5	42.8	47.7	40.7	48.4	41.3	50.8	44.6	49.5	43.5
25—30	50.0	41.1	48.1	40.7	46.9	41.2	54.7	42.7	53.0	44.3
30—35	48.1	41.1	49.1	40.2	48.2	40.8	50.1	42.41	50.4	42.4
35—40	49.1	40.2	47.4	38.5	50.4	41.6	57.4	45.5	50.8	44.3
40—45	49.0	37.6	47.4	41.0	51.1	39.6	52.3	42.8	50.8	43.2
45—50	46.5	41.9	45.2	39.8	49.8	39.6	47.1	40.8	49.1	40.5
55—60	48.5	40.4	46.5	38.0	45.9	40.1	48.5	39.9	49.1	43.5
60	46.4	36.4	45.1	36.1	45.4	37.5	45.4	39.3	49.8	42.4

TABLE — 3.1 (Contd.)

Age (Years)	Karnataka		Andhra Pradesh		Gujarat	
	Male	Female	Male	Female	Male	Female
16 +	40.9	40.5	40.0	40.2	39.6	39.5
17 +	43.9	40.6	41.7	40.5	41.5	40.5
18 +	44.8	43.1	43.9	42.2	44.8	37.5
19 +	45.8	42.2	48.0	43.9	42.0	43.8
20—25	47.8	42.5	47.7	42.32	47.0	42.5
25—30	50.4	42.3	50.9	42.0	49.7	41.8
30—35	48.3	42.7	50.1	43.7	48.0	41.6
35—40	49.7	41.1	50.1	42.0	47.7	44.1
40—45	49.4	42.4	50.7	42.9	50.2	40.9
45—50	48.3	40.8	50.1	42.1	47.8	40.9
50—55	50.5	44.1	50.6	42.3	45.0	40.7
55—60	48.3	38.9	49.6	42.7	44.1	41.7
60	46.0	40.4	47.9	40.6	45.9	41.58

SOURCE — National Nutrition Monitoring Bureau.

TABLE — 3.2

Urban Rural Differences in Nutritional Status of Pregnant Women

	Group	Number	Hieght (cms)	Wieght (Kg)
First trimester	— Urban	408	150.8 ± 4.78	44.3 ± 5.43
	— Rural	38	150.9 ± 5.23	43.1 ± 4.66
Second trimester	— Urban	1527	151.1 ± 4.16	45.8 ± 5.21
	— Rural	120	151.1 ± 5.49	45.2 ± 4.72
Third trimester	— Urban	1522	150.8 ± 4.27	49.5 ± 5.12
	— Rural	312	150.1 ± 5.29	47.1 ± 5.81***
Immediately after	— Urban	2832	151.4 ± 5.64	45.4 ± 7.23
delivery	— Rural	199	151.3 ± 5.01	43.0 ± 4.99***

Comparisons are made between urban and rural data in each group by 't' test.
***P 0.001.

Food Intakes

Food is needed to provide energy for doing work, protein for building tissues and vitamins and minerals for the overall utilisation of energy and protein. Energy foods are carbohydrate rich foods like cereals (rice, wheat, millets), potatoes, bananas and sugar, jaggery. Energy can also be got from fat (oils and ghee).

Protein foods are pulses (all dhals), meats, milk, eggs etc. Vitamins and minerals are found in plenty in vegetables, fruits and meats, fishes and pulses.

Energy requirements : Have been computed, based on body weights, sex, climate and work done. There is a minimum amount needed for both man and women first to survive, that is Basal Metabolic Rate (BMR). This amount of energy is needed just to exist and no more. Any further activity needs more energy. So the acts of working such as cooking, filling water, cleaning the house etc. need energy over and above the BMR. Certain types of work need more energy than others. Washing clothes and filling water needs more energy than cooking. The same work consumes less energy if done at a slower pace such as walking. If you walk slowly with a broad base, your consumption of energy will be less than if you walk briskly. It has been found that the BMR for men is more than that for women because the average weights of men is more than that of women. Energy needs also depend on the type of work done. It has been assumed that womens' work is largely light work with very little moderate activity. The Committee in-charge of computing dietary requirements for Indians defined energy requirements of adult men and women in terms of a Reference man and woman.

Reference man : Is between 20-39 years of age and weighs 55 kg. He is free of disease and physically fit for active work. On each working day he is employed for 8 hours in occupation that usually involves moderate activity. While not at work he spends 8 hours in bed, 4-6 hours sitting and moving around and 2 hours in walking and in active recreation or in household duties.

Reference woman : Is between 20-39 years of age, healthy, and weighs 45 kgs. She may be engaged in 8 hours in general household work, in light industry or in other moderately active work. Apart from 8 hours in bed, she spends 4-6 hours sitting or moving around only through light activity and 2 hours in walking or in active recreation or in household duties (See tables for recommended requirements).

Some how the definition of a reference woman does not come any where near our experience of life. It is so much of rushing around doing 3-4 things at a time, cooking, running after the kids, fetching water, bathing, washing, sweeping. Infact, our muscles are never relaxed, they are alert ready to dash off at the slightest sound of impending energency. If walking needs 4-5 kcal|min and running 8-10 kcals|min then we are some where in between (provided we are fed at least). But the recommended allowance is given for reference man and woman (See table 4.1) with additions for pregnancy and breast feeding.

This has been challenged by the work of the Astra group from Bangalore, where they have computed the average time spent on each activity and have minutely defined the details of woman's work (taking a years average).

Next the energy needed for each of the activities has been worked out (presuming that men need proportionately more energy for doing the same work due to difference in their BMR and their body weights etc.). They find that the requirements for women should be higher than that for men as women's activities are much more and spread over a longer time (see tables). Well that is only part of the story. Looking at the actual intakes of food, the picture is grim.

The intake of calories and protein is grossly inadequate in almost all the States with Kerala and U.P. being the worst off. Pregnant and lactating women seem to subsist on starvation diets and still manage to give birth to a child, feed it, and do all the work. The questions being asked by eminent scientists is where does the energy come from ? How can a woman expend so much energy without slowly disappearing (she should loose weight continuously). Hence some find it convenient to say that perhaps (1) the recommended food intakes are too high — proof

being the poor and women who survive with half the recommended intakes.

Since extent of poverty is measured by looking at the numbers who can meet their food requirements based on recommended allowances — these scientists feel that the extent of poverty is really not as bad as projected because the so called poor continue to work, bear children, feed them and still do not drop dead — hence the poverty line should be brought down and prosperity increased by the mere stroke of a pen.

But, how do women and the poor manage to survive ? (if energy cost of all her activity is counterposed by her meagre intake she must disappear).

1. Well, women may not continuously loose weight — but they are definitely lighter than their desired weights.

2. Women have no energy reserves for emergencies such as illness etc., so that their mortality rates are higher in the event of an epidemic compared to well fed women.

3. They carefully regulate their energy expenditure since energy expenditure depends on briskness of activity, the poor women move about slowly and steadily, with a broad base, stretching their time to do the same work, so that the energy expenditure can be kept to a minimum (BMR) (even when they are carrying weights, filling water or working at construction sites !). They try to conserve as much energy as possible by cutting out on the quality of life. Ofcourse, they are called lazy, inefficient, slow and even cheats. But what they are trying to do is exist and work at BMR level, because they do not have any surplus energy for briskness.

4. It is also possible that their cells are converting food into usable energy more efficiently. This could result in early wearing out of cells, early ageing. There are no scientific tools for checking this (E.P.C. Feb. 27, 1982, pg. 331).

People who feel that recommended allowance are too high ofcourse feel that desire to eat, satiety, have no place in their academic discussions. Will women eat more if they are fed ? These are the questions that need answering.

An important fact to note is that a large number of so called 'illegal' abortions being performed by dais and local abortionists are the only services most poor women can turn to. These have been available for centuries. The urban professional trained persons have now contemptously dubbed them 'illegal' — placing them out of the purview of modern health services and also easing the conscience of the established doctors.

The government has now decided to take cognisance of these abortions and study the morbidity and mortality pattern. Perhaps these services could be expanded as a result of the findings. Significantly there is no international assistance for this service, whereas oral contraceptives are subsidised and dumped on third world countries.

References :

1. Population Reports — Series F, No. 7, 1980, pg. 135.
2. Ibid. pg. 110.
3. Bhaskar Rao, L. Jr. of Obstet & Gynec. India, 30, 859, 1980.
4. ICMR (Indian Council of Medical Research), Bulletin May, 1979.
5. Ray Arathi, paper presented in seminar on Medical, Social and economic aspects of abortion, Proceedings of Seminar organised by FPA of India, 1972, Calcutta, pg. 81.

TABLE — 4.1

Recommended dietary

Group	Particulars	Net calories (Kcal)	Pro-teins (gm)	Cal-cium (gm)	Iron (mg)	Vitamin A' Retinol or β-carotene (μg)	(μg)
	Sedentary work	2400					
Man							
	Moderate work	2800	55	0.4-0.5	24	750	3000
	Heavy work	3900					
	Sedentary work	1900					
Woman							
	Moderate work	2200	45	0.4-0.5	32	750	3000
	Heavy work	3000					
	Pregnancy (second half of pregnancy)	+300	+14	1.0	40	750	3000
	Lactation						
	0-6 months	+550	+25		32	1150	4600
	6-12 months	+400					
Infants							
	0-6 months	118|kg	2.0|kg	0.5-0.6	1.0	400	—
	6-12 months	108|kg	1.7|kg		mg|kg	300	1200
Children							
	1-3 years	1220	22.0			250	1000
	4-6 years	1720	29.4	0,4-0.5	20-25	300	1200
	7-9 years	2050	35.6			400	1600
Boys	10-12 years	2420	42.5			600	2400
Girls	-do-	2260	42.1	,,	,,		
Boys	13-15 years	2660	51.7		25		
				0.6-0.7		750	3000
Girls	-do-	2360	43.3		35		
Boys	16-18 years	2820	53.1		25		
				0.5-0.6		750	3000
Girls	-do-	2200	44.0		25		

COMMUNITY HEALTH CELL

Intakes of Nutrients

Thiamine (mg)	Riboflavine (mg)	Nicotinic acid (mg)	Vitamin B_6	Ascorbic (mg)	Folic acid (μg)	Vitamin B_{12} (μg)	Vitamin D (I.U.)
1.2	1.4	16					
1.4	1.7	19	2.0	40	100	1	
2.0	2.3	26					
1.0	1.1	13					
1.1	1.3	15	2.0	40	100	1	
1.5	1.8	20					
+0.2	+0.2	+2	2.5	40	300		
+0.3	+0.3	+4				1.5	
+0.2	+0.2	+3	2.5	80	150		
59μg/kg	71μg/kg	780μg/kg	0.3	20	25	0.2	
54μg/kg	65μg/kg	710μg/kg	0.4				
0.6	0.7	8	0.6				
0.9	1.0	11	0.9				
1.0	1.2	14	1.2				
1.2	1.5	16					
1.1	1.4	15	1.6	40	100	0.2	
						1.0	200
1.3	1.6	18					
1.2	1.4	15	2.0				
1.4	1.7	19					
1.1	1.3	15	2.0				

TABLE — 4.2

Recommended dietary intakes of Vitamins

Group	Vitamin A Retinol (μg)	Vitamin A β-carotene (μg)	Thiamine (mg)	Riboflavine (mg)	Nicotinic acid (mg)	Vit. B_6 (mg)	Ascorbic acid (mg)	Folic acid (μg)	Vit. B_{12} (μg)	Vit. D (IU)
Adult .										
Man	750	3000	1.4	1.7	19	2.0	40	100	1	
Woman	750	3000	1.1	1.3	15	2.0	40	100	1	
Lactation	1,150	4600	+ 0.2	+ 0.2	+ 2	2.5	40	300	1.5	
Pregnancy	750	3000	+ 0.3	+ 0.3	+ 3	2.5	80	150	1.5	
Infants :										
0-6 months	400					0.3	20	50	0.2	200
6-12 „	300	1200				0.4				
Children :										
1-3 yr.	250	1000	0.6	0.7	8	0.6				
4-6 yr.	300	1200	0.9	1.0	11	0.9				
7-9 yr.	400	1600	1.0	1.2	14	1.2				
Boys :										
10-12 yr.	600	2400	1.2	1.5	16	1.6				
13-15 yr.	750	3000	1.3	1.6	18	2.0	40	50-100	0.2 to 1.0	
16-18 yr.	750	3000	1.4	1.7	19	2.0				
Girls :										
10-12 yr.	600	2400	1.1	1.4	15	1.6				
13-15 yr.	750	3000	1.2	1.4	15	2.0				
16-18 yr.	750	3000	1.1	1.3	15	2.0				

TABLE — 4.3

Hours per day spent on Domestic and Agricultural Activities

Activity	Hours per day		
	Man	Woman	Chil
A. Domestic			
1. Gathering firewood	0.33	0.41	0.24
2. Fetching water	0.02	0.78	0.13
3. Cooking	0.02	2.28	0.18
4. Carrying food to farm walking to farm	1.00	1.14	—
5. Investock grazing	1.63	0.47	1.03
B. Agricultural			
1. Ploughing	0.18	—	—
2. Irrigation	0.30	—	—
3. Transplanting	0.08	0.33	—
4. Weeding	0.08	0.33	—
5. Harvesting	0.18	0.19	—
6. Winnowing	—	0.09	—
7. Threshing	0.14		
8. Manuring	0.13)	0.04	—
9. Nursery	0.07)		
10. Harrowing	0.03	—	—
11. Transporting	0.05	—	—
C. Other activities*	9.76	7.94	8.42
D. Rest and sleep (approx.)	10.00	10.00	14.00

Source : Compiled from data given in ASTRA, 1981 : "Rural Energy Consumption Patterns — A Field Study", Indi Institute of Science, Bangalore.

Srilata Batliwala EPW (Economic and Political Weekly).

TABLE — 4.4

Calorie Cost of Domestic Activities (Cals|Minute)

Activity	Calorie cost		
	Man	Woman	Child
. Gathering firewood			
(a) Walking to source	5.2	4.4*	4.6*
(b) Returning trip with load	6.4	5.5*	5.7*
2. Fetching water			
(a) Walking to source	5.2	4.4*	4.6*
(b) Return trip with load	6.4	5.5*	5.7*
3. Cooking	2.5*	2.1*	2.2*
4. Carrying food to farm|walking to farm	5.2	4.4*	4.6*
5. Live stock grazing	2.8	2.4*	2.5*
6. Others (sweeping, cleaning child care, personal care, play, sitting etc.) average	1.5*	1.5*	1.7*

Sources : (i) N. L. Ramanathan and P. G. Nag, "Energy Cost of Human Labour", National Institute of Occupational Health, Ahmedabad.

(ii) R. Rajalakshmi, 1974 : "Applied Nutrition" (Second Edition), Oxford and IBH, New Delhi.

TABLE — 4.5

Calorie Cost of Agricultural Activities (Cals|Minute)

Activity	Calorie Cost	
	Man	Woman
1. Ploughing	5.5	4.7*
2. Irrigation	3.3	2.8*
3. Transplaning	5.1*	4.3*
4. Weeding	5.1*	4.3*
5. Harvesting (manual)	5.1*	4.3*
6. Winnowing	5.3*	4.5*
7. Threshing	5.4	4.6
8. Manuring	4.0*	3.4*
9. Nursery	3.5*	3.0*
0. Harrowing	6.5*	5.5*
1. Transporting (by bullock cart)	2.0*	1.7*

Source : N. L. Ramanathan and P. G. Nag. "Energy Cost of Human Labour", National Institute of Occupational Health, Ahmedabad. *All estimated or approximated figures.

TABLE — 4.6

Activity-wise Calorie Expenditure per Day

Activity	Calories Per Day		
	Man	Woman	Child
A. Domestic			
1. Gathering firewood	115	122	74
2. Fetching water	7	232	40
3. Carrying food to farm walking to farm	312	301	—
4. Cooking	3	287	24
5. Livestock grazing	274	68	155
Subtotal	711	1010	293
B. Agricultural			
1. Ploughing	59	—	—
2. Irrigation	59	—	—
3. Transplaning	25	85	—
4. Weeding	25	85	—
5. Harvesting	57	51	—
6. Winnowing	—	24	—
7. Threshing	45)		
8. Manuring	31)	10	—
9. Nursery	15)		
10. Harrowing	12	—	—
11. Transporting	6	—	—
Subtotal :	334	255	—
C. Other activities	878	715	655
D. Rest and Sleep (approx.)	550	500	650
TOTAL :	2473	2505	1598

Srilata Batliwala EPW.

TABLE — 4.7

Intake of Nutrients per Day — 13-16 Years — Girls — (1975-78)

State	N	Protein (g)		Calories (kcal)		Iron (mg)		Vitamin A(μ g)	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Kerala	35	36.4	12.48	1431	322	15.8	4.88	126	154.2
Tamil Nadu	24	43.8	25.75	1678	862	22.2	16.48	127	95.4
Karnataka	45	54.3	23.94	2056	721	32.7	14.57	156	151.9
Andhra Pradesh	26	41.2	12.85	1624	409	19.7	9.10	180	155.0
Maharashtra	37	48.3	25.83	1606	736	24.5	12.54	248	482.6
Gujarat	32	50.2	17.97	1792	711	22.2	10.37	238	322.5
Madhya Pradesh	34	52.2	23.61	1597	673	21.9	12.07	109	119.4
West Bengal	46	36.2	14.29	1384	490	20.2	8.57	353	482.7
Uttar Pradesh	31	42.6	19.56	1378	569	18.5	9.04	140	186.3
Recommended levels		50.00		2500		35.0		750	

NNMB; NIN; ICMR 1980

TABLE — 4.8

Intake of Nutrients Per Day — 16-18 Years — Girls — (1975-78)

State	N	Protein (g)		Calories (kcal)		Iron (mg)		Vitamin A(μg)	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Kerala	16	32.2	11.23	1327	423	15.0	6.35	134	195.1
Tamil Nadu	15	44.2	19.46	1846	592	23.4	10.32	208	220.8
Karnataka	17	56.4	16.59	2131	433	34.2	11.49	271	254.2
Andhra Pradesh	5	56.0	21.41	2017	639	26.8	11.52	138	53.5
Maharashtra	20	46.7	18.40	1601	562	26.7	11.86	274	343.8
Gujarat	15	42.8	16.67	1626	517	20.5	11.04	449	844.8
Madhya Pradesh	16	52.5	15.27	1618	510	24.4	6.92	152	165.2
West Bengal	18	40.4	13.49	1524	459	19.3	6.49	377	729.6
Uttar Pradesh	19	61.0	24.87	1804	585	24.3	11.32	111	97.7
Recommended levels		50		2200		35.0		750	

NNMB; NIN; ICMR 1980

TABLE — 4.9

Intake of Nutrients Per Day — Adult Females (Sedentary) — (1975-78)

State	N	Protein (g)		Calories (kcal)		Iron (mg)		Vitamin A(μg)	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Kerala	255	34.2	11.93	1387	534	14.8	4.72	133	307.4
Tamil Nadu	184	43.8	17.02	1739	593	22.5	10.97	177	149.2
Karnataka	301	63.6	32.90	2333	892	37.2	18.07	225	255.1
Andhra Pradesh	226	45.1	17.81	1798	607	20.6	8.23	200	173.8
Maharashtra	296	53.3	21.84	1816	684	28.5	12.68	273	312.0
Madhya Pradesh	143	57.3	24.08	1777	617	23.9	13.21	134	240.9
West Bengal	176	43.4	17.12	1595	543	23.7	12.90	455	809.6
Uttar Pradesh	297	57.4	28.52	1731	778	25.1	14.76	225	513.9
Recommended levels		45.0		1900		30.0		750	

NNMB; NIN; ICMR 1980

TABLE — 4.10

Intake of Nutrients — Pregnant Adult Females — Sedentary — (1975-78)

State	N	Protein (g)		Calories (kcal)		Iron (mg)		Vitamin A(μg)	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Kerala	4	29.4	13.06	1199	200	13.2	3.32	70	30.4
Tamil Nadu	6	35.2	17.68	1302	712	19.4	11.62	227	269.4
Karnataka	9	79.4	26.68	2523	682	47.9	15.23	230	122.4
Andhra Pradesh	8	47.1	17.00	1802	512	18.2	8.33	214	193.2
Maharashtra	7	49.0	14.78	1664	496	26.7	16.33	501	708.7
Gujarat	20	45.8	20.38	1713	667	20.1	9.76	217	163.4
Madhya Pradesh	5	40.1	18.08	1454	216	19.7	5.12	164	89.2
West Bengal	10	64.7	24.71	1908	470	26.1	9.77	216	211.4
Uttar Pradesh	2	49.6	19.02	1373	292	17.9	9.05	123	49.8
Recommended levels		55.0		2200		40.0		750	

NNMB; NIN; ICMR 1980

TABLE — 4.11

ıntake of Nutrients Per Day — Lactating Females — Sedentary — (1975-78)

State	N	Protein (g)		Calories (kcal)		Iron (mg)		Vitamin A(μ g)	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Kerala	38	31.6	9.22	1272	345	13.3	3.45	85	37.4
Tamil Nadu	42	47.8	19.33	1831	623	23.4	10.29	181	169.1
Karnataka	80	67.8	32.61	2422	965	39.2	17.66	235	215.1
Andhra Pradesh	23	50.4	17.41	1916	599	22.3	8.78	209	166.3
Maharashtra	53	57.3	30.86	1928	948	29.9	15.45	317	413.9
Gujarat	73	54.1	20.03	1894	561	25.0	10.30	295	383.6
Madhya Pradesh	32	67.6	23.37	2057	595	28.3	15.53	161	139.8
West Bengal	64	45.2	25.41	1631	627	23.7	12.96	388	571.0
Uttar Pradesh	12	58.4	20.72	1695	558	28.9	25.82	576	1589.1
Recommended levels		65.0		2800		30.0		1150	

NNMB; NIN; ICMR 1980

TABLE — 4.12

Intake of Nutrients Per Day — Lactating Females — Moderate — (1975-78)

State	N	Protein (g)		Calories (kcal)		Iron (mg)		Vitamin A(μg)	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Kerala	1	50.9	—	1445	—	23.2	—	33	—
Tamil Nadu	8	59.8	22.79	1935	603	27.5	10.23	144	77.3
Karnataka	7	53.0	29.88	1951	1046	35.9	18.52	178	148.1
Andhra Pradesh	5	58.5	21.04	2317	712	30.9	17.55	394	489.3
Maharashtra	7	49.4	19.08	1598	692	27.3	12.63	80	49.9
Gujarat	8	65.4	30.99	2141	681	34.3	26.03	703	1601.4
Madhya Pradesh	1	82.0	—	2601	—	38.3	—	73	—
West Bengal	6	43.8	23.52	1608	516	19.8	12.90	186	179.1
Uttar Pradesh	—	—	—	—	—	—	—	—	—
Recommended levels		65.0		2900		30.0		1150	

NNMB; NIN; ICMR 1980

REFERENCES FOR FOOD INTAKES

1. Banerji, D. Measurement of poverty and undernutrition, **EPW,** XVI, 1579, 1981.
2. Dandekar, V. M. On measurement of poverty, **EPW**, XVI, 1241, 1981.
3. Dasgupta, R., Estimation of Nutritional Intakes, **EPW,** XVIII, 1238, 1983.
4. Santi, K. and Panda, K. M. Measurement of incidence of undernutrition, **EPW,** XVI, 1275, 1981.
5. Srilatha Batliwala. Rural energy, scarcity and nutrition, a new perspective, **EPW,** XVII, 329, 1982.
6. Sukhatme, P. V. Nutrition Policy; Need for reorientation, **EPW,** XV, 1980.
7. Sukhatme, P. V. Measurement of Undernutrition, **EPW,** XVII, 2000, 1982.
8. Recommended Dietary Allowances for Indians, ICMR, 1981, N. Delhi.
9. National Nutrition Monitoring Bureau, ICMR, New Delhi. Annual Reports.

EPW — Economic and Political Weekly.

Health Care in India

Health care in India is of two types. The traditional care based on the collective wisdom and experience of the older women and relatives and the so called "modern" based on the "clinic", "doctors" and "hospitals".

The traditional care spills into the areas of ayurvedic, unani and homeopathic. This is a more easily acceptable form of health care as it is culturally closer to our lives, less commercialised and less critical of our practices. In fact, the cures it offers are not "capsule and tablets", but a whole way of life — such as the kinds of foods you can eat, the bath, the ceremonies. These are always the first line of defence and sometimes the last hope for a chronic disease.

The modern health care set up is located both in urban and rural areas, manned by doctors who are trained to treat exotic illness such as heart diseases, cancers, metabolic diseases and syndromes. They rely on capital intensive technology and hence become restricted to the urban metropolitan centres, where 70% of the health budget is spent.

Urban set up :

1. Big urban centres with large hospitals, facilities for X-rays, laboratories and specialities. Largely diagnostic and curative.

2. **District hospitals** : Also with in-patient beds, X-rays, laboratories and some specialities. Also referral centre with curative facilities. Even the sophisticated hospitals catering to the needs of a state however neglect women in terms of number of beds allotted to then (See Table 5.1). The reasons given are that the incidence of most of these problems such as hypertension, diabetes, cancers, endocrine disorders, heart problems are higher in men. Infact, "scientific" explanations have been offered such as "nature protects women because she is needed for the continuation of the species". Such functionalist explanations are now being challenged, as it has been shown that the incidence of some diseases is higher in

women than men. My personal observations reveal that in spite of the high incidence of diseases in women they are not allowed to get away from the family and home for prolonged treatment in hospitals. They hence refuse admission and come back only when they are in a critical stage.

There is also evidence of the fact that women are never taken seriously when they come to a government hospital. They are drugged with tranquilisers or placebos. The situation among the private practitioners is worse. Middle class women have been made "addicts" of injections, tonics and B-complex vitamins. Womens' health problems are seen as "dirty", "silly" and "uninteresting".

Another look at the tables on bed strengths reveals that "burns" are high among women between the ages of 15-45, but more beds are allotted for men in the plastic surgery wards. Doesn't this imply that all women with burns are expected to die as desired by the family ?

The rural health set up however has branched into every corner of the country (on paper at least). There is a Primary Health Care (PHC) for every lakh population with 2-3 doctors and about 20 paramedical staff. It has both curative and preventive care such as;

1. Treatment of illness
2. Maternal and child health
3. Immunization
4. Family Welfare
5. Leprosy and TB work etc.

Two hundred and thirty two PHCs have been upgraded to community health centre with 30 bedded hospitals and a few specialities.

Subcentre : There are 50,000 subcentres with visiting doctors from the PHC and 2-3 paramedical staff looking after the curative and preventive needs of 10,000 population in the rural areas.

There are many other workers on the other national programmes that work in the same areas as the PHC and subcentres such as TB, Leprosy, Malaria workers.

Unfortunately this complicated national health care never reaches the village. The common illness of the vast majority specially the poor women and children are too simple and uninteresting to the modern health functionary. Eighty percent of the common problems need simple care and can even be prevented, such as fevers. diarrhoeas, worm infestations, dysentries, vaginal infections, eye, ear and skin problems, cough, and colds. Earlier attempts were made to increase the staff and reduce numbers that have to be covered. This approach did not help. It was at last accepted that the "Modern trained doctor is unfit to work in the rural areas".

Hence, the community health volunteer scheme was launched in 1977 with the hope that a person trained from a village in both curative and preventive care could cater to the basic needs of 1000 population of that areas. She would be easily acceptable and understand the needs of the population. 2.5 lakh CHVs have been trained so far. Unfortunately, the CHVs trained are mostly men (90%), treat more men than women and stress on family welfare to the neglect of other functions. This scheme has however brought the skills of health care nearer the lives of the rural people.

The allopathic system has been very critical of the CHV scheme in the name of "standards" and "dilution of quality". But what happens to the country's health standards when mothers and children die of lack of basic health services or the high toll of epidemics.

There is a proposal that all future CHVs must be women. For women specially a demystification of medicine is important in the struggle against the way in which the health set up manipulated them.

TABLE — 5.1

Sanctioned Bed Strength in a Large Teaching Hospital in Hyderabad (1981)

	Male	Female
Medical	230	152
Surgical	178	81
Orthopaedic	67	31
Thoracic surgery	22	9
Genitourinary	24	13
Neurosurgery	30	12
Dental	6	6
V.D.	12	3
Skin	10	5
Psychiatry	2	5*
Cardiology	36	25
Students' ward	6	6
Burns and plastic surgery	26*	15
Leprosy	14	6

Psychiatry ward is the only place we are allowed to go for 'rest and holiday ! !

TABLE — 5.2

Cases of Burns Admitted in the Ward in the same Hospital

Age	Male	Female
0 — 1	12	8
1 — 4	26	22
5 — 14	22	25
15 — 24	25	54
25 — 34	32	68
35 — 44	14	18
45 — 54	9	14

National Programmes

To support the health system and tackle emergencies on a war-footing the government launched National Programmes to combat communicable diseases and other problems. India as a nation emerging out of colonial control decided to demonstrate its capacity to tackle the problems of the poor and the women by passing legislation, instituting committees and general stressing on social welfare measures. These were obviously important land marks in medical history.

One problem with such measures is that not changing the structures in the health set-up and the society at large, they become actions of tokenism.

The programmes for the control of communicable diseases :

1. National Malaria Eradication Programme in 1953 — Almost a success story, till the interference of vested interests jeopardised the further work in 1960's.
2. National Filaria Control Programme in 1955
3. National Tuberculosis Control Programme.
4. National Leprosy Control Programme in 1954-55.
5. Sexually transmitted diseases control programme in 1956-57.
6. National Programme for the Prevention of Visual Impairment and Control of Blindness in 1976.
7. National Goitre Control Programme.
8. Expanded Programme for Immunization.
9. National Water Supply & Sanitation Programme.
10. Minimum Needs Programme.
11. Diarrhoeal Disease Control Programme etc.

These are vertical programmes, too distanced, with too much of centralised control and they stop making meaning after some time.

The National Programme approach is obviously not the way to cope with the situation. The poor have hardly benefited for obvious reasons. Looking at the figures of the incidences of all the diseases, one gets the impression that return to the Family Care and Village Care might help.

Programme for Women

The programmes meant to tackle the health and nutritional problems of women are numerous. They were instituted and implemented, however half heartedly, because a low status of woman and child health is an index of a country's poor self esteem.

Maternal Child Health Programme : The idea is as old as 1866, when the Zenana Mission commenced its MCH work in India. In 1855, the Dufferin Fund Committee started midwifery courses, but only in 1931, a Maternity and Child Welfare Bureau was established under the aegies of the Indian Red Cross Society to provide technical assistance to government and non-government organisation. The help of WHO and UNICEF was also received. In 1933, a Dept. of MCH existed in All India Institute of Hygiene & Public Health, Calcutta. We now have sophisticated urban hospitals, equipped to tackle any emergency. We also have the various health functionaries at the village levels.

Some how the women have not benefited from the set up. Very often there is no hope that a woman will receive medical attention and immunization during pregnancy, nor can she expect care in the eventuality of a prolonged or complicated delivery. A woman's life is dispensable both for the family and the country.

National Programme for the Distribution of iron and folic acid :

This programme is meant to tackle the problem of anaemia among the women and children. As it has already been started anaemia tops the list of causes for maternal mortality. It is felt that the distribution of iron pills during pregnancy would bring down the incidence of this problem.

While the intention is laudable, it is unfortunate that the programme has not even been evaluated. It is suspected that the pills rarely reach the women and even if they do, there are problems of storage and side effects. Women cannot be expected to remember to take a pill every day during pregnancy in addition to the hundred small every day things that she must remember in spite of her nausea, fatigue and tension. In any case, the major criticism is that the government manages to provide a pill for every massive problem in this country. A problem as difficult as anaemia is not likely to be solved so easily !

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National Nutrition Programme

It had been recognised that food intakes, specially of the women during pregnancy and lactation and that of the children is inadequate. The reasons for this "semi famine" lies squarely in the low real wages, the lower status of women and the complex socio-economic conditions.

The government ofcourse has tried to tackle it from the wrong end. It has introduced 2 major programmes. 1. Applied Nutrition Programme launched in 1963 to help collective production of protective foods on the common government lands in a village such as eggs, milk, fish and fruits and vegetables for the mothers and children. Health education was supposed to help them recognise the need to produce and consume protective foods.

The presumption on which the programme has been launched are the following :

1. The existence of co-operation among all the different strata in the village.
2. Fair distribution of food to those who need it most.
3. The possibility of mobilising free labour for the production of protective food.
4. Sinking of the caste differences.

The programme was imaginative in its conception but for obvious reasons has not been able to make an impact on the

health and nutritional status of women and children.

Special Nutrition Programme for rural areas and the supplementary nutrition programme for urban slums and tribal groups was started in 1970. Based on the finding that the short fall calorie and protein intake is of the order of 500 cals and 20 gm of protein for pregnant and lactating women, a concentrated food packet consisting of pulses, jaggery, groundnuts and oils were prepared with various combinations and distributed to the remote corners. The aim was to distribute food supplements containing

200 cals and 10 gm of protein to children and 500 cals and 20 gm of protein to pregnant and lactating women.

Now in hospital situations, this is a feasible project. But at the national level it runs into problems associated with centralised control, transport, distribution, acceptability etc. Even if the food reaches them the reality is that the mother shares it with the other members of the family or also it acts as a substitute for home food instead of a supplement, specially in the case of children. So in effect the calorie gap is not filled.

Except during crisis situations such as flood, and famine, these approaches to solve the country's food problem are wrought with obvious pitfalls.

There appears to be an endless attempt at solving the major problems of the women by either social welfare measures or a capsule approach. The roots of the problem lie elsewhere and food packets can not be expected to solve the reality of poverty, stratification, patriarchy and the caste system !

The Medical Termination of Pregnancy Programme

Every year in India, 6 million women resort to 'illegal' abortions (1) resulting in very high death rates (100—1000|100,000 procedures). (2) Many more women have infection, bleeding, injury and other complications that could have been avoided. These abortions are performed not only in remote villages but even in cities by dais and local abortionists. Lack of asepsis results in very high death rates. It is estimated that 30% of all maternal deaths in hospitals are due to abortion complications. Abortions are carried out usually very late (after 12 weeks of pregnancy) due to late diagnosis, lack of adequate medical services and the social stigma attached to it. There is also a subconscious delay and hesitation in the hope that somehow the period will come. There are others who have delayed because of the "hormone pills" and "injection" that are supposed to bring on the periods (these have yet to be banned).

The medical termination of pregnancy (MTP) Act was passed in 1971 and came into force from April 1st, 1972. The rules and regulations laid down for the conditions under which pregnancy could be terminated and the persons who could perform termination were further altered in 1975 to reduce the time lag. The new rules allow for a registered medical practitioner to qualify by performing a mere 25 cases of MTP in a hospital established or maintained for the purpose by the government. Theoretically any woman should be eligible for the services as "failures of contraceptive devices" is one of the ground apart from medical and humanitarian ground.

In spite of this, look at the treatment that is meted out at any MTP clinic. There is disgust on the faces of all health personnel. They humilate you and agree to abort you reluctantly. It is as if women must pay a price for being sexually active. Abortion will weaken the moral fibre of our society. In fact a study was done in 1972 on the eve of the historic MTP act to show that abortions will mar the "traditional image and social dignity of Indian women and erode our social and religious standard while increasing

social immorality". However, the author felt that abortion is good for those with lower incomes and those who are unmarried (Ref. Kalapathi Mallic, Indian Institute of Social Welfare and Business Management, Calcutta, pg. 141, at a Seminar Organised in 1972 on the MTP act in Calcutta). Perhaps dignity and morality lies in secrecy and death alone can cleanse us of this sin. The advantage of safe abortion in trained hands is thus a moral danger !

"Legal abortion" by trained personnel has a very low death rate. In the urban teaching hospitals in India, it is 68|100,000 but even this is much higher once the duration of pregnancy exceeds 12 weeks. It is 26.4|100,000 before twelve weeks and 321|100,000 after 12 weeks. In spite of the advantage of 'legal abortion', for women, less than 2.0 million legal abortions have been performed since 1972, whereas the need is about 4-6 million per year.

Surprisingly MTP services are considered as a part of the health services and not part of the National Family Planning Programme. No separate budget has been allocated for MTP, instead, huge amounts are set aside for oral pills, condoms and intrauterine devices (loop, copper T etc.). It is ironical that women do not find these family planning methods acceptable and accessible. Women would like to be assured of safe abortion services instead. The abortion services when available suffer from all the ills of the nation's health services. The problems are lack of information, limited publicity and the widely held belief that abortion is illegal. Absence of adequate facilities and trained persons, specially in the rural areas makes the MTP act useless. Even in the cities more than 50% of the beneficiaries are economically and educationally better off (4). It is further shown that morbidity and mortality due to abortion have a definite socioeconomic gradient. Prevalence of all complications, bleeding, cervical auterine injury or other major complications like pelvic spesis follow a socio-economic gradient, the lowest rates being in the upper classes and the highest in the low income groups, even when the period of pregnancy is the same (4).

This is further aggravated by the fact that poor women come at later stages for abortion.

An important fact to note is that a large number of so called 'illegal' abortions being performed by dais and local abortionists are the only services most poor women can turn to. These have been available for centuries. The urban professional trained persons have now contemptously dubbed them 'illegal' — placing them out of the purview of modern health services and also easing the conscience of the established doctors.

The government has now decided to take cognisance of these abortions and study the morbidity and mortality pattern. Perhaps these services could be expanded as a result of the findings. Significantly there is no international assistance for this service, whereas oral contraceptives are subsidised and dumped on third world countries.

References :

1. Population Reports — Series F, No. 7, 1980, pg. 135.
2. Ibid, pg. 110.
3. Bhaskar Rao, L. Jr. of Obstet & Gynec. India, 30, 859, 1980.
4. ICMR (Indian Council of Medical Research), Bulletin May, 1979.
5. Ray Arathi, paper presented in seminar on Medical, Social and economic aspects of abortion, Proceedings of Seminar organised by FPA of India, 1972, Calcutta, pg. 81.

Family Welfare

Family Planning now called Family Welfare is a mixed programme for women. It is true that a large number of us are searching for a safe contraceptive method that will help us control our fertility and our lives (to whatever extent possible in the given circumstances!), but none of us see Birth Control as a solution or a palliative for all social evils. The government sees "Family Welfare" as a panacea for,

1. Increased poverty
2. Increased crowding
3. High Child Mortality
4. Decreased standard of living
5. Inadequate food consumption

Almost every social ill !

The basis of the government programme are neo malthusian, the assumption being that the teeming miliions are responsible for the increasing poverty as they devour all surplus. We know that the poor hardly consume anything in terms of food, housing, clothes, schooling, motor cars, health etc. Hence reduction in numbers wil not make available any surplus for distribution within the family or save government stocks !

The country's wealth is in the hands of the top 25 families who control 75 % of the capital and the top 5 % of landlords who control more than 50% of the land. In spite of this, India has produced enough food to feed the population, the poor still go hungry because of the high prices, low wages, lack of purchasing power. To add to this, the health system is not geared to assure the survival of the children of the poor (Refer Infant Mortality Rates) inspite of the numerous programmes. Since there is no hope of old age security for the masses, except their surviving children —We must ask ourselve what does cutting down numbers mean to the poor?

Could there be other implications — Robert McNamara as recently as Summer 84 (Foreign Affaires, 62 (5) : 1107-31)

writes ".....unless action is taken to accelerate the reduction in rates of growth, the population of the world will not stabilise below 11 billion and certain regions and countries will grow far beyond the limits consistent with political stability and acceptable social and economic conditions.....nations facing political instability of the kind already experienced in Kenya, Nigeria, El Salvedor — instability in part as a result of high population growth rates.....Developed and developing countries have a common interest in avoiding the consequences of current population trends". This appears to reveal the superpower interest in population control, and women's needs to control their fertility has no priority. In fact, the added hue and cry about third world population is not the real love for the "quality of life of the poor", but the possibility that we can provide limitless markets for the hormone pills produced by the multinationals. The poor can consume only these at government subsidized centres and world markets is what the West is looking for. Further confirmation of this comes from the recent USA decision at Mexico to cut aid for population control to agencies that conduct or promote abortions ! (Agencies such as UNFPA and PPF will have their arms twisted to push the pill). It is difficult to believe that the USA believes in the sancity of life and therefore condemns abortion. (Remember Vietnam, Nigaragua, Chile, South Africa!).

In spite of all these contradictions, as women we are interested in Birth Control and we do use the services of the Family Welfare Programme. It would have of course been ideal if the services and care had been available to us as our right instead of for the sake of graphs and vital statistics. This could be one reason why women all over the country have fought lonely battles against the enforced measures. It is perhaps one of the greatest protest movements after 1947. Women refused the loops which were introduced in the 1960s without proper medical care and follow-up. The 1975-77 emergency sterilization are too well known to mention. The pill in the present set up has not made any impact — there are too many hassels (see below) women rejected abortion with strings attached (abortions are only available if women agree to have a intrauterine device or a sterilization). Women have got operated only after they are sure that they have "enough" children — even though it meant

carrying an unwanted pregnancy to term because the doctor refused an abortion. Women have fought against any form of coercion by the State — and were willing to pay the price.

Comparatively Women have reacted more positively to the sterilization operations after delivery — often they have gone through a pregnancy, to be able to get operated after the delivery though this meant going to a government hospital when labour pains came on (See Tubectomy below). But this is where we have to see how technology is quickly utilised to take advantage of the mood of women for instance the tubectomies by Laproscopes which have flooded the countryside. Science and Technology is lagging far behind when it comes to other problems of women.

The birth control measures available are :

1. **Reversible**
   a) Intrauterine device
   b) Contraceptive pills
   c) Condoms
   d) Injectables

2. **Irreversible**
   a) Tubectomies
   b) Vasectomies

Intrauterine device

These are the (a) Loop, (b) Copper T and may be other copper devices, inserted in the uterus through the cervix, where it prevents pregnancies. A foreign substance inserted such in spite of all precautions still needs follow up care. The greatest danger is :

(a) pelvic infection in a population with a high incidence of vaginal discharge and untreated infections,

(b) Irregular and even severe bleeding leading to a lot of difficulties,

(c) Back pain — another unbearable problem.

It is hence not surprising that women have refused to get IUDs inserted. A health system that has been unsympathetic to vaginal discharge and cervical erosions (a sore on the cervix)

cannot be expected to be sensitive to the needs of women with an IUD. Hence acceptability is very low, instead of putting up with back pains, bleeding and infection many women prefer to complete the family and get operated.

Pills

This is another story of neglect. It was seen as an answer to all problems — it is a hormone that would act by either preventing the egg from coming out or would charge the uterus lining so that the fertilised egg would not survive — but now we know the innumerable hazards associated with it if not taken under strict care. In fact there is a slump in the Western markets. There is a possibility that it can cause :

1. Severe nausea, headache, depression (generally called "psychological" by the health personnel).
2. Diabetes
3. Hypertension
4. Clotting disorders
5. Ischaemic heart disease
6. Flare up of fungal infections
7. Liver disorder
8. Even cancers.

The arguments are that the chances of getting these diseases are small — this is fallacious because we do not have any idea of the prevalence rates of many problems in our women. The whole business of taking one tablet every day every month for as many years as you do not want a child can put off most women. A very small percentage of women can stick to it — and definitely not the rural women. Hence it is surprising how the government expects to distribute these pills in the rural areas (through Social Marketing. There are so many conditions which if present would mean that women cannot take the pill. These are called contra-indications — they are :

1. B. P.
2. Diabetes
3. Liver disorders
4. Epilepsy
5. Jaundice

6. Migrane
7. Fungal infection
8. Mass in the breast
9. Kidney problems etc.
10. Breast-fed Child less than 6 months

If taken irregularly, it can cause,

1. Reduced breast milk and return of fertility
2. Pregnancy
3. Problems to the foetus if the pill taking continues accidentally with pregnancy. This is what happened in the Bangladesh Experiment where pills flooded the countryside.

Injectables

This is again a case of technology that relies on our "injection culture", respects our "need for secrecy" and does away with the daily pill taking. One cannot help wondering how technology has not been used for more basic health problems of our community and how is it that "family planning" opens up all doors !

This is also a hormone, given in a dose that will last for 1 month — the problem recorded is Menstrual irregularity. Not much research has been done on its long term effects on BP, diabetes, cancers etc., hence its release in the market so soon could repeat the Depo Provera story.

Condoms

A very effective method if backed up by abortion in case of failure. The problems are (1) insensitive partners with imaginary problems with pleasure, (2) The tensions when we know that our men will be careless with its use, (3) Men do not discuss their real experiences with other men as we do — hence it is difficult to even broach on the topic.

As a womens' group, we feel that the safe barrier methods such as the cervical cap and the diaphragm should be brought back and perfected. It has many advantages.

1. It releases us from the hold of the multinationals.
2. It liberates us from male control and infact helps us understand our body functions better,

3. It is non invasive (does not get into the system),
4. It is not coercive (the method is in our hands) and we can take our decisions.

PERMANENT METHODS

These are tubectomy and vasectomy.

Tubectomy

This operation cuts the fallopian tube which brings the egg from the ovary to the uterus.

Vasectomy

Cuts the vas deferens that transports the sperm from the testis to the outside.

Tubectomy can be done;

1. After child birth — called **post partum sterilization.**
2. When not pregnant — called **cold sterilization.**
3. After an abortion.

Post partum sterilization

This has become very popular. It appears to be acceptable because many women plan their operation and even willingly go through a pregnancy to be able to get operated. The reasons are that the uterus is high up near the umblical after the delivery. A small cut under a local anaesthesia is enough. It is true that the woman needs rest (any way she is allowed this because of the baby). It does have problems because after all the fallopian tube is in the abdomen and infections can be very severe. Other problems such as altered menstruation, back pains (PID) can result, but very often dismissed as psychological. Nevertheless, this has been one of the most popular methods for fertility control.

Cold sterilization

This was being done under local or general anaesthesia when a woman is not pregnant. Very few women could be motivated to plan this operation — it meant leaving the family when she is hale and hearty and demanding care and bed rest. It was just not practical in the given circumstances. How could a

woman get admitted in the hospital for 5-6 days — her services were needed at home! The other problem with the operation is ofcourse larger number of side effects such as infections, shock and bleeding because it meant exploring the abdomen to find the small uterus and tube.

Only 20% of deliveries take place in the hospital — so the number for post partum sterilization is small and that too, after the "event". Hence, the women got an answer to the prayers of the planners — A technique that will catch the non-pregnant and do away with the hospitalization (not the side effect!). The family will not be disturbed! and we have the **laproscopic sterilizations**. This involves the use of an instrument to visualise the fallopian tube after a small cut is made near the umblicus. The instrument also blocks the tube with a ring. The women can go home the same day. The problems are many :

1. The wrong tube can be blocked — such as intestines.
2. Failure rate is high because the ring can slip.
3. Problem of infections and bleeding, because the abdomen is a sensitive area for any operation and these operations do not get any follow up attention due to immediate discharge, from the hospital or because they are performed in the camps, in large numbers. There is a limit to short circuiting of womens needs ! Already reports have come in regarding the greater problems with laproscopy.

Sterilization with abortion

If the pregnancy is more than 3-4 months, it is like a post-partum sterilization or else if less than 3 months an abortion with sterilization either with laproscopy or without it is done.

Vasectomy

A discussion on this is necessary because it is in our interest that this operation gets known. This is a much simpler operation because the vas deferens is very close to the skin can be reached easlly by a small cut under local anaesthesia. One can go back to work the same day. Healing ofcourse needs the usual 5-6 days (any injury needs this time). Like any cut, it can get infected, but the chances are less because men will not opt for this

operation when their general condition is bad or they are physically exhausted (as women do after childbirth). There is no basis to the feeling that it affects potency. Men can go about their work like walking, cycling, carrying loads, almost everything.

Vasectomy was the more popular operation in Government programmes till 1977, when the forced operations tipped the scales both politically and against women. Almost all government programmes and aided programmes take up family planning to the exclusion of others. There is limitless money for this and and the greater surprise was that even ILO has money for this, when the condition of the workers (specially unorganised sector) is so wretched.

TABLE — 10.1

Sex-wise Break-up of Sterilization Operations Performed (Since 1956)

Year	Number of Sterilization			Percentage of tubectomies to total
	Vasectomy	Tubectomy	Total	
1956	2,395	4,758	7,153	66.5
1957	4,152	9,584	13,736	69.8
1958	9,189	15,959	25,148	63.5
1959	17,633	24,669	42,302	58.3
1960	37,596	26,742	64,338	41.6
1961	63,880	40,705	104,585	38.9
1962	112,357	45,590	157,947	28.9
1963	114,621	55,625	170,246	32.7
1964	201,171	68,394	269,565	25.4
1965 January to March 1966	576,609	94,214	670,823	14.0
1966-67	785,378	101,990	887,368	11.5
1967-68	1,648,152	191,659	1,839,811	10.4
1968-69	1,383,053	281,764	1,664,817	16.9
1969-70	1,055,860	366,258	1,422,118	25.8

Year	Vasectomy	Tubectomy	Total	Percentage of tubectomies to total
1970-71	878,800	451,114	1,329,914	33.9
1971-72	1,620,076	567,260	2,187,336	25.9
1972-73	2,613,263	508,593	3,121,856	16.3
1973-74	403,107	539,295	942,402	57.2
1974-75	611,960	741,899	1,353,859	54.7
1975-76	1,438,337	1,230,417	2,668,754	46.1
1976-77	6,199,158	2,062,015	8,261,173	25.0
1977-78	187,609	761,160	948,769	80.2
1978-79	390,922	1,092,985	1,483,907	73.7
1979-80	472,687	1,305,237	1,777,924	73.4
1980-81*	434,576	1,593,938	2,028,514	78.6
Cumulative since inception	21,262,541	12,181,824	33,444,365	36.4

*Provisional
From Family Welfare 1980-81
Government of India

TABLE — 10.2

2. Outlay and Expenditure on Family Welfare Programme over Different Plan Periods in India

(In 10 lakhs of rupees)

Period	outlay		Expenditure for F.W.	
First Plan				
1951-56	65.00		14.50	
Second Plan				
1956-61	497.00		215.60	
Third Plan				
1961-66	2,697.60		2,486.00	
Annual Plans (Inter Plan Period)				
1966-67	1,493.00		1,342.60	
1967-68	3,100.00	8,293.00@	2,652.30	7,046.40
1968-69	3,700.00		3.051.50	
Fourth Plan (Plan outlay Rs. 33,000.00)				
1969-70	4,200.00		3,618.42	
1970-71	5,200.00		4,890.43	
1971-72	6,060.50	28,576.20@	6,175.56	28,,443.00
1972-73	7,630.70		7,974.80	
1973-74	5,485.00		5,784.59	

Period	outlay	Expenditure for F.W.	
Fifth Plan (Plan outlay Rs. 49,735.73)			
1974-75	5,413.60	6,204.80	
1975-76	6,319.95	8,061.37	
1976-77	7,014.00	28,565.22@ 17,298.21	40,898.08
1977-78	9,817.67	9,333.70	
Sixth Plan 1978-83 (Plan outlay Rs. 76,500.00)			
1978-79	11,181.39	11,852.06	
1979-80	11,619.23	22,800.62@ 10,754.53	22,606.59
Sixth Plan 1980-85 (Plan outlay 101,000.00)			
1980-81	14,000.00@	13,421.88**	
1981-82	15,500.00@	16,848.38*	

@Budget Provision
*Revised estimates
**Provisional

Dai Training Programme

Actually as early as the begining of this century it was recognised that women delivered at home in the hands of Traditional Birth Attendants (TBA) and did not benefit from the advances medicine had made. In 1902, the Victorial Memorial Scholarship Fund Committee was established to improve midwifery services and collect funds for training of indigenous dais. In 1920, the Chelmsford All India League for Maternity and Child Welfare also collected funds for this purpose.

In 1943, J. N. Norman states in his book "Indian Village Health" (Pg. 60) ".....It is necessary and good policy to make use of local dais to encourage them to accept training and help them when trained, to obtain practice and livelihood. If the local dais are antagonised, the development of useful work will be delayed and hindered" A very pragmatic approach indeed !

But after 1947, all this was set aside when India decided to multiply the production of doctors and expand health services. In the name of international standards all short courses in medicine were abolished and dai training left in the cold storage as medical graduates were trained to be truely export worthy.

The dais have however lingered on and proved to be a source of embarassment to the government. The women have more faith in the dai than the fleeting medical doctor, here one day and transferred the next. Added to this was the realization that health services just did not reach the women and children. Hence the dais were resurrected and the Dai Training Programme intensified in 1977-78 with UNICEF assistance.

During the IV Plan, this was transferred to the Family Planning Programme.

By 1978, 65,000 dais were trained
1980-81 3,44,994 have been trained

By the end of the VI Plan we have a promise of one trained dai in every village.

Their training schedule are vast, such as, (i) knowledge of the reproductive system, (ii) care during delivery, (iii) antenatal and postnatal care, (iv) aseptic practices, (v) contraception. Unfortunately, the training does not respect and utilise the richness of the dai's experience. The beneficial practices could have been gathered and documented. Instead, adverse practices of the dais have been pointed out and the right ones taught. This approach perhaps leaves the dais with their confidence shattered.

There are also certain social problems such as the caste question. It appears that only one dai may not be quite acceptable to the whole village. Another major criticism has been that there is over emphasis on family planning.

The medical profession ofcourse was again taken aback by this bold attempt and warned that "since the understanding level of dais is limited, they should be taught only the essential fundamental....." (Ref. Obstetrics & Gynaecology of India, Vol. 29, 623, 1979).

Womens groups would greatly benefit from informations such as the practices of the dais, the postures of delivery that they adopt, the post delivery problem of bleeding, tears and infection and their management, the traditional practice of induction of labour and abortions.

Post Partum Programme

All India Hospitals Post Partum Programme is a Hospital approach to Family Welfare Programme covering 524 medical institutions hospitals at district level by 1980-81. It concentrates on Family Planning after delivery or abortion — largely providing tubectomies and intrauterine devices. A field area is also attached to promote MCH services (found to be far from satisfactory, Sudershan Kumari et al, Ind. Pediatrics, Vol. 18, Pg. 619, 1981).

Area Projects under Family Welfare

(Family Welfare Yearbook, 1980-81)

Name	Area	Agencies
India Population	6 districts of U.P. 5 districts of Karnataka	IDA SIDA
	Continues into 46 districts of 12 States	
World Bank assisted Area Project	6 districts of U.P. 3 districts of A.P.	World Bank Rs. 37 crores.
U. K. Assisted	5 districts of Orissa	Overseas Development Agency of British Govt £ 10.84 million.
UNFPA	6 districts of Bihar 3 districts of Rajasthan 8 districts of M.P. 2 districts of Tamil Nadu	Rs. 46.46 crores UNFPA — 80% cost.
USAID	2 districts of Maharashtra 2 districts of Gujarat 3 districts of Punjab 3 districts of Haryana 3 districts of U.P.	USAID $ 40 million

The Govt. of India's commitment is there in terms of money infrastructure etc. There is a health, nutrition component with emphasis on family planning!

Anaemia

This condition can make one easily tired, causing black outs and general disinterest in work with lowered resistance to infections. There can be breathlessness on walking, bone pains and even heart failure. During pregnancy it turns a killer if the woman have any other accompanying problem like excess bleeding. The babies of anaemic mothers are smaller, with very little energy reserve.

Anaemia is less blood. Blood is needed to carry oxygen to remote corners of the body because food is converted to energy only when it burns in oxygen. This energy is used for all life activity such as walking, talking, running and even merely existing. The red cells in the blood, need iron (the same stuff that goes to make a nail) to carry the oxygen to the various corners of the body. This iron must come from food.

The foods rich in iron are meats, liver, fish, whereas green leafy vegetables, dals, beans have very little iron. Vegetarian foods have negligible amounts. Women become anaemic easily because of

1. Excessive menstrual loss of blood,
2. Repeated pregnancies,
3. Infection
4. Bleeding due to any other cause.

Diagnosis of anaemia

Criteria for diagnosis of anaemia :

Group	Haemoglobin levels in gm|100 ml blood below which anaemia is considered to exist. **Gm|100 ml**
6 months to 6 years	11
6 years to 14 years	12
Adult male	13
Adult female (non pregnant)	12
Adult female (pregnant)	11

Ref. : Nutritional Anaemia, WHO Technical Report Series No. 405, WHO, Geneva, 1968.

Based on the above criteria, the prevalence rate of anaemia in women in the different metropolitan cities is as follows :

% prevalence of anaemia in different parts of India

	Age in years				
	1-5 Boys & Girls	6-4 Girls	15-24 Women	24-44 Women	45 Men & Women
Hyderabad	65.5	66.7	64.4	75.9	47.0
Calcutta	94.4	95.3	95.1	93.7	88.3
Madras	23.2	18.3	19.0	24.4	21.8
New Delhi	57.1	73.3	61.5	76.5	66.7

Ref. : American Journal of Clinical Nutrition, 35, 1442, 1982.

Women are most vulnerable during their reproductive period. The low levels of anaemia in Madras are difficult to explain.

Now what happens when a women is anaemic during pregnancy — she has more chances of having smaller babies and a higher perinatal and maternal mortality.

	Haemoglobin in gm|100 ml.			
Mean Haemoglobin	5	5—7.9	8—10.9	11.0
Mean birth wt. in gms.	2400	2530	2660	2710
Perinatal mortality rate|1000	500	174	76	55

Ref. : Proceedings of Nutrition Society of India, No. 28, 1983.

It is known that 50-60% of all women are anaemic during pregnancy and there is no urban-rural difference. The smaller babies born generally have a higher mortality and infection rate. Anaemia in pregnancy is also the cause of the maximum number of deaths of mother in childbirth (See Maternal Mortality) due to excess bleeding.

Research in the field of anaemia has been :

1. Trying to prevent anaemia by the distribution of iron pills,
2. Trying to educate people regarding foods,
3. The attempt at fortification of common salt with iron so that a food item consumed by every one (rich or poor) becomes the vehicle for iron.

Pills never quite reach the beneficiary and can not be expected to solve a problem that has its roots in poverty, poor environment, sanitation and the wretched status of women. Common salt is not prepared in a centralised area in this country and checks on proper mixing will have to be done. Operational research is being conducted with iron fortified salt at this stage.

The earlier studies tried to look at various methods of treatment and finer details of delivery systems. Present studies are however fascinated by "work capacity" of anaemia women. An example of such research on women was done among the tea plantation workers in the Nilgiris with haemoglobin levels as low as 6.6 g. (See Tables).

The women were next divided into groups where one received iron tablets, the second, placebo, the third group received worm treatment (intestinal worms appear to cause anaemia too) and the fourth got iron tablets and worm treatment and their work capacity was estimated in terms of number of tea leaves plucked, and the number of days worked before and after the treatments.

These women are subsisting at starvation levels. What they really need is food. Instead of feeding them, we find it cheaper to given them a pill which would help carry oxygen to burn food for energy, and make the women work. What can the women burn for energy except her own flesh? And of course, the researchers have shown that women performed better, plucked more leaves for more days and helped the management make profits. This is an example of molecular manipulation, using microgram quantities of iron or oxygen to set in motion a body that is crumbling out of fatigue and hunger. We also have researchers who believe in minimum inputs and maximising outputs. They do cost benefit analysis with human lives.

Another unethical angle is that placebos are distributed to women who have been found to be severely anaemic. Any one of them could have dropped dead during the study. In major teaching hospitals any woman with a haemoglobin level of 7.0 gm or below will be admitted for investigations and treatment.

TABLE — 13.1

Haemoglobin Levels (Gm) of Women by Age as on Sept, 30th, 1977

Age (Yrs.)	No. of women	4	4-5	5-6	6-7	7-8	8-9	9-10	10+
20-24	12	1	1	3	6	1	—	—	—
25-29	46	1	8	20	13	1	2	1	—
30-34	36	4	8	10	11	2	1	—	—
35-39	48	5	12	11	17	3	—	—	—
40-44	37	3	10	12	10	2	—	—	—
45-49	23	—	—	11	11	—	1	—	—
50	26	—	—	5	18	—	2	1	—
Total	228	14	39	72	86	9	6	2	—

Ref. : Nutrition Society of India 1983

Most of the women have Hb levels below7.0 gm|100 ml.
Hb WHO criteria is 12.0 gms|100 ml.

TABLE — 13.2

Comparison Between Women receiving Iron or No Iron

Treatment	No. of women	Sept. 30, 1977		January 11, 1978	
		Hb.	Wt.	Hb.	Wt.
Placebo	117	6.1	48.1	6.0	46.9
Iron tablet	111	6.1	48.1	7.8	50.7

Ref. : Same as table 13.1.

TABLE — 13.3

Comparison of Plucking Performance of Women with and without Iron Treatment

	PLACEBO		IRON	
	Pre-project	Project & Post-project	Pre-project	Project & Post-project
No. of women		117		111
October Lp.	346.7	396.0	353.9	495.9
NDW	21.7	21.9	20.7	24.1
November Lp.	292.8	313.3	319.8	408.3
NDW	18.2	19.0	17.9	21.4
December Lp.	274.3	256.4	247.7	370.6
NDW	16.5	16.8	15.5	20.0
January	287.4	273.5	284.1	384.6
NDW	17.1	16.8	16.8	20.4
February	335.7	293.3	335.4	419.7
NDW	18.8	17.6	19.4	21.4
March	411.7	424.9	442.3	554.0
NDW	21.4	22.0	22.0	24.4

LP Leaves plucked in Kg.
NDW No. of days worked
Ref. : Same as table 13.1.

Hypertension

This condition must be suspected if one has :

1. Severe headache in the day
2. Irritability
3. Restlessness
4. Inability to sleep
5. Chest pain.

Hypertension is also precipitated by :

i. Stress, (which woman does not have it?)
ii. Drugs like oral contraceptives
iii. High fat diet and obesity
iv. Heredity factors
v. Chronic urinary tract infections.

Even starvation diets with no oils or butter (fats) can precipitate blood pressure, because a minimum amount of fats are needed for the body. Unsaturated fats like groundnut oil, til oil or saflower oil are better than saturated fats like dalda, palmolein and ghee. The role of stress perhaps plays a very large role in precipitating hypertension. In a socioeconomic condition where the reality of life is hunger, semi starved children, over work, wife beating and insecurity, and stress becomes a normal condition of existence, it is not surprising that tht incidence is rising in urban populations and specially among women.

Prevalence of Hypertension :

West	—	More than 15%
Big cities like Delhi and Bombay	—	15 to 30%
Small town like Rohtak : Men	—	5.9% Average 6.4%
Women	—	6.9%

Rural India — 3.5%
Urban India — 4.15%

Hypertension is seen more often in women after the age of 40 years. The data from Delhi and Bombay unfortunately does not look at the sex difference :

Ref. : 1. M. L. Bhatia, Indian J. Med. Sci. 32, 13, 1978.
2. S. P. Gupta et al. Indian Heart J. 30, 315, 1978.

The study by Keil et al throws light on the role of stress as a result of socio-cultural changes in a woman's life. They have studied the prevalence and age at onset of hypertension. BP of migrant Punjabi women in London is more than the BP of naturalised Punjabis in India. Migration could result in change in diet pattern, but much more, it could contribute to the stress that women have to cope.

Age	Naturalise	Migrant
11-20	—	—
21-30	—	1.7
31-40*	0	11.8
41-50	3.1	**51.6**
51-60	5.0	66.7
61	6.3	**87.5**
All ages	1.4	22.6

The authors observe that BP starts early in migrant women and is related to time spent in England. It is also correlated with education and weight.

Ref. : Keil, J. E. et al. Human Biology, 49, 641-650, 1977.
Fifty percent of women are hypertensive by the age of 40 and this can not be explained only by diet changes in the migrants.

Complications of Hypertension :

1. Strokes
2. Heart attacks
3. Kidney failure
4. Blindness.

The research in this field is full of the study of the molecular phenomenon in a cell, mechanism of damage to the arteries and also the study of the altered clotting mechanism resulting in strokes, heart attacks and other complications.

What we need is to clearly identify areas of women's lives and struggle that precipitate hypertension and methods of prevention. Methods of relaxation in spite of the 24 hour rush, methods of cutting out the stress and drudgery and getting on with our work.

Perhaps yoga, exercises etc. might help. Workers in the field of hypertension feel that the blood pressures are less among the poor, and thin because they loose more salt due to heavy work and where psycho-social factors remain static and unchanged with no acute stress and frequent arousal of the autonomic system.

As is usual, simplistic explanations have been offered for everything. It is not true that the poor, lean and hungry do not have hypertension, infact one is amazed at the incidence of strokes and heart attacks that they have due to hypertension. Women much more than men. Perhaps, the rural community has other acceptable methods of buffering psycho-social stresses like being possessed and the high drama that goes with it and the higher incidence of psychological problems that are only now being recognised.

Diabetes

This is not a dramatic disease. It must be suspected if one has :

1. general weakness
2. loss of weight,
3. frequency of passing urine,
4. desire to eat throughout the day,
5. unfortunate pregnancy outcome such as premature babies, stillbirths, perinatal deaths etc.,
6. large babies being born that generally do not seem to have resistance to infection.

If in addition the following factors are present then the chances of being diabetic are higher :

1. Parents or grandparents are diabetic
2. Obesity
3. Stress
4. Drugs like oral contraceptives
5. Chronic infections that do not go early like vaginitus, urinary tract infection, skin infections, other fungal infections.

The diagnosis can be made by a blood examination for glucose (all carbohydrates, sugars etc. are converted to glucose and circulate in the blood as glucose. A diabetic has a fasting blood glucose of more than 140 mg|dl and a post lunch blood glucose level of more than 200 mg|dl.

Complications of diabetes can be :

1. Kidney damage,
2. Blindness,
3. Pheripheral vascular disease (such as gangrene or BP),
4. Heart attacks.

Cause : One does not know for sure. But in India and other Asian, Latin American and African countries, it is known that

diabetes is not just a disease of the rich and obese, but is found also in the lean and malnourished — called the J-type diabetes. Chronic hunger can exhaust the body's capacity to handle carbohydrate foods resulting in diabetes. There is also no urban-rural difference.

Rural area : Percent prevalence of diabetes mellitus

Age	Male	Female	Total
20-25	2.5	1.2	1.8
50	4.0	5.4	4.7
All ages	2.9	2.0	2.4

Ref. : Survey of Diabetes Mellitus in rural population of India, Diabetes 21, 1192, 1972.

Women at older ages have a higher incidence than men. Even among the tribals of Orissa the incidence is :

Male : 5.2%
Female : 3.0%
Mean : 4.35%

and there were more diabetics among the lean and under-nourished.

Ref. : Tripathy, B.B.J. Assoc. Physician of India, 27, 497, 1979.

The research in India often mimics the Western trend of looking at only the obese diabetics (who are less than 50% of the diabetics in India). The pecularity of hunger precipitating this condition, and modes of preventing it have not been studied at all. There is now an attempt at studying traditional remedies and even yoga for the cure of diabetes. The results have been equivocal. There is much more excitment in looking at treatments, complications and associated findings that satisfy the intellectual needs of researchers here. It is frightening to think of what will happen when oral contraceptives flood the countryside and become a precipitating factor to the already existing conditions of stress (like hunger and chronic infections). These and questions of prevention are important because once diabetes is detected the future is bleak with a life of long dependence on expensive drugs. How many of us can afford this treatment ?

Leprosy

Leprosy is an infections disease caused by a micro organism similar to the one that causes tuberculosis. The peculiar feature of leprosy is that it takes years of contact to get it, and another 8-10 years to cure it. It is definitely a disease of the poor who live in such sub-human conditions. Though, the disease is curable and infact not as contagious as one thought, there is a haunting fear of the deformities it leaves behind. The fear of being diagnised and labelled as a "leprosy patient" keeps away people from any detection drive. Infact, even after a diagnosis is made, a leprosy patient would rather not believe it and generally refuses to take any medication. This fear is much more in women then men, because there is the added danger of being deserted. Hence leprosy continues to be one of the dreaded diseases with a prevalence rate of 10-20|1000 population in large towns, with total affected population in India 32 lakhs. Total affected population in Bombay is 80,000.

Madras and Greater Bombay	15.2 per 1000 population surveyed.
Age at onset being, Male	: 31.49 years
Female	: 29.43 years.

So far it was felt that for every women who had leprosy there were 3 men who suffered. This finding has been challenged by recent surveys that are based on total population surveys. Detection of leprosy means the detailed examination of the whole body surface of the person for (1) altered skin colour (depigmented patches) on the arms, legs, body (2) change in the sensation or reduced sensation in these areas, (3) thickened nerves on the arm, neck, leg, (4) weakness of the muscle.

One cannot see an investigator persuading an apparently normal woman to subject herself to this examination. In fact, an investigator would be guided by his own bias of how women should be protected from unnecessary exposure.

Recent surveys from the whole of Pondicherry (which claim to have examined the whole population) show that there is no difference in the prevalence rate between men and women.

Age in years		Prevalence
0-4	Male	0.8
	Female	3.1
	T	2.0
5-14	Male	6.6
	Female	9.5
	T	8.0
15-24	Male	8.7
	Female	6.0
	T	7.4
25-44	Male	8.7
	Female	6.4
	T	7.6

The total prevalence being very high, 69|1000 with younger girls being more prone than boys. Is it because girls spend longer hours in closed ill ventilated rooms, where contact with others who have it is unavoidable or perhaps poorer resistance because of poorer food intake (resistance to disease is related to adequacy of food intake).

In 1954-55, the leprosy control programme was launched. There are 42 national and voluntary organisations also in the field of leprosy.

Research in leprosy is all geared to producing a vaccine — may be by another 10-20 years before it reaches us. The West and USSR did not eradicate leprosy with vaccine, in fact better economic conditions and improvement in condition of living were related to eradication of leprosy, tuberculosis and other chronic infectious diseases. Must we tackle leprosy differently?

References :

1. P. Vijaysanber, Leprosy in India, 54, No. 1, p. 155.
2. S. Kaur, B. Kumar and S. N. Roy, Leprosy in India, July 1982, 54 (3), 428.

Amniocentesis

It has been felt that high voltage technology in underdeveloped country can not take the stress and strains of the conditions prevailing there and becomes virtually useless and impracticable. This is not true when it comes to amniocentesis and laproscopic sterilization. In fact these two techniques are practised widely in spite of the environmental conditions. There appears to be no hitch of either personnel, money or infrastructure like that found by other national programmes for women. These two programmes have proved that technology works in India though for the wrong reasons.

Amniocentesis has reached base levels of usage in our society. It promises to predict the sex of your child in a set up where female infanticide is still being practised and baby girls are allowed to die out of neglect. Obviously, the next logical step would be to abort the foetus if it is a baby girl. What is this procedure ?

Amniocentesis : This is really a technique by which a little fluid is removed from the amniotic sac (bag of water around the foetus) of the pregnant women to be able to examine the fluid for foetal abnormalities. The procedure is generally done after 14-16 weeks, because by then the uterus has climbed out into the abdomen and a needle can be introduced from the front of the abdomen, through the uterus into the amniotic sac. Before 12-14 weeks, the uterus is still in the pelvis and cannot be reached.

Certain tests can be done on the fluid to indicate the presence of possible abnormalities in the foetus. Of course disorder of the chromosomes can be detected if the cells floating in the fluid (mostly that of the baby) are examined after they are stained by a special stain.

It is this process of cromosomal examination that incidentally confirms the sex of the foetus. The males have XY chromosome whereas the female XX and these can be visualised under the microscope.

The procedure of removing the fluid, its risk of damaging the baby, placenta, leading to severe haemorrhage and even abortion of the baby. But the procedure has now become popular only for sex determination and subsequent abortion of female foetus.

More and more doctors and nursing homes are helping mothers have the child they want in the name of 'choice' and freedom to decide.

But is this a true freedom? Is it not the family and society driving women into prefering sons. Infact, the woman has no choice whatsoever. Arguments that say that perhaps, this will tilt the ratio away from women and that women will be scarce and hence more valuable are too ridiculous to deserve discussion? Surely more responsible discussion should take place.

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